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AUTHOR Bennett, Christine; Okinaka, Alton M.
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ABSTRACT

A follow-up study of undergraduate student attrition at Indiana University is presented. It builds upon previous research on student attrition documenting high rates of attrition among Black and Hispanic undergraduates. It also builds upon the Conceptual Model of Black Student Attrition. One goal is to compare persisters and non-persisters within the 1982 cohort according to variables in the revised model. The current study improves upon previous research by: (1) using actual persister or non-persister status; (2) using registrar data on high school rank, Scholastic Aptitude Test or American College Test scores, and college grade point average; (3) expanding the measure of college satisfaction; (4) adding measures of intra-ethnic networking and friendship patterns on campus; and (5) increasing the sample size of Hispanic and Asian students. The comparisons are broken down by persister status within the major ethnic groups on campus: Asians, American Indians, Blacks, Hispanics, and Whites. A computerized list of students from which the questionnaire samples were drawn was developed. Results indicate there are two different issues, sometimes interrelated. First is the issue of student attrition and the continuing high dropout rates among Blacks, Hispanics, and American Indians on campus. Second is the negative quality of campus life for ethnic minorities and strong feelings of social alienation and dissatisfaction. Satisfaction, openness, and college adjustment are important predictors of persistance among Asian, Black, and White freshmen. Tables are included. Contains 30 references. (SM)

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Factors Related to Persistence Among Asian, Black, Hispanic, and White Undergraduates at a Predominantly White University: Comparison Between First and Fourth Year Cohorts.

Paper Draft

by

Christine Bennett

Indiana University

and

Alton M. Okinaka

University of Hawaii at Hilo

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INTRODUCTION

This research builds upon a previous study of student attrition that documented high rates of attrition among Black and Hispanic undergraduates at Indiana University (Bennett, 1984). The previous research revealed attrition rates of 62% for Blacks, 38% for Hispanics, 30% for Whites, and 28% for Asians. Although these findings generated a good deal of interest and concern on campus, the follow-up study reveals that four years later Black and Hispanic attrition has not lessened. Within the 1982 cohort, the attrition rates 3-3 1/2 years after entry are 65% for Blacks, 52% for Hispanics, 46% for American Indians, 27% for Asians, and 21% for Whites. (See Table 1.)

The follow-up research also builds upon the Conceptual Model of Black Student Attrition that was developed in the original research (Bennett, 1984; Bennett and Bean, 1984). That model was developed with a sample of over one third of the Black undergraduate student population that combined students from the 1978-79 through 1981-82 cohorts. The current study improves upon the previous research by 1) using actual persister or non-persister status, rather than intent to complete a degree as a measure of persistence; 2) using registrar data on high school rank, SAT or ACT scores and college GPA, rather than self report; 3) expanding the measure of college satisfaction from one-item to a sixteen item scale that resulted in four satisfaction factors; 4) adding measures of intraethnic networking and friendship patterns on campus; and 5) increasing the sample size of Hispanic and Asian students.

A major goal of the current research is to compare persisters and non-persisters within the 1982 cohort according to each of the variables in the

revised model. These comparisons are broken down according to persister status within the major ethnic groups on campus (excluding international students): Asians, American Indians, Blacks, Hispanics, and Whites. A second major goal is to compare findings from the 1982 cohort (fourth year students) with results from the 1985 cohort (freshmen). Given that the patterns of student attrition at Indiana University exist in many schools across the nation, and that conditions on the Bloomington campus are similar to many large predominantly White universities, the results of this research should be of widespread interest.

THE ORIGINAL CONCEPTUAL MODEL OF BLACK STUDENT ATTRITION

The structure of the original conceptual model of student attrition comes from the synthetic model of student attrition (Bean, 1982a). In that model, prematriculation characteristics of students (e.g., high school grades) are expected to influence the way in which the student interacts with the institution, which, in turn, leads to the student's attitudes toward the institution. These attitudes are expected to affect the intent to leave, and intent is viewed as the immediate precursor of actual attrition.

The original conceptual model of Black student attrition contains nine independent variables with intent to leave as the criterion variable. Intent to drop out is used as a surrogate measure for actual attrition (Bean, 1982b). In this model three variables are expected to have direct effects on intent to drop out: satisfaction, college GPA, and "less trauma." Thus a student who is satisfied, attaining satisfactory grades, and not

traumatized will be more likely to stay in school. Less trauma is also expected to have a direct positive influence on satisfaction. Three variables (collegiate positive interracial contact, stage of ethnicity, and preparedness) are all expected to have a direct positive influence on both less trauma and satisfaction. Preparedness is also expected to have a direct influence on college GPA.

Three background variables are included in the model. Precollege positive interracial contact is expected to have a positive influence on both collegiate positive interracial contact and stage of ethnicity. Precollege academic performance (indicated by high school GPA, SAT/ACT scores, and high school prepatory curriculum) is expected to influence preparedness and college GPA. Parent's educational level is expected to have a positive effect on college GPA, and a positive effect on preparedness.

THE REVISED CONCEPTUAL MODEL OF BLACK STUDENT ATTRITION

This follow-up study revised several of the variables from the original model (i.e. satisfaction and stage of ethnicity), and added three new variables that focus on student life on campus: ethnic organization membership, friends on campus, and opportunities to help. The original "transitional trauma" scale, which contained the less trauma and preparedness factors was renamed "college adjustment" and modified so that four dimensions resulted; Prepare, Instructors, Relate, and Accomplishment. These modifications will be described more fully in the next section.

The revised conceptual model of Black student attrition contains eleven independent variables with actual persister status, rather than intent to leave, as the criterion variable for the 1982 cohort. Intent to complete a college degree is used as the criterion variable for the 1985 cohort. In the revised model the direction of all effects is presumed to be positive.

(Insert Figure One)

VARIABLES USED IN THE STUDY

There are a number of variables which affect students' academic achievement and personal development in college. Academic entry skills (e.g. high school GPA) have already been shown in other research to be the best overall predictor of college GPA. These skills undoubtedly influence the academic success of Black and Hispanic students. In the 1982 study approximately 52% of the Black students entered the University through a Special Services Program (GROUPS). 63% of these "high risk" students dropped out of the University as compared with 61% of the Black non-Groups students. Many Black and Hispanic freshmen at the University have low entry skills. However, many minority students who are not in academic difficulty elect to leave the University prior to completing the degree. Other factors which influence their college careers needed to be identified. In addition to a number of variables used frequently in previous research, the original and follow-up studies selected three variables not previously considered in studies of college student-persistence: interracial contact experiences, openness to human diversity (stage of ethnic identity), and

feelings of trauma (renamed college adjustment). The variables will be discussed according to their arrangement in the study's Revised Conceptual Model of Black Student Attrition shown in Figure One.

Precollege Positive Interracial Contact; Collegiate Positive Interracial Contact. Positive interracial contact (PIC) is defined as a positive assessment of past interracial contact. Precollege PIC indicates a student's assessment of interracial contact before matriculation, and Collegiate PIC indicates a student's assessment of PIC at the University.

Eighteen questionnaire items focused on the quality of contact the respondent had experienced "with people of an ethnic background different from my own" both before and after coming to the University. Respondents were asked to respond to how pleasant these contacts were with response options ranging from 1-very unpleasant to 4-very pleasant, or does not apply, in each of the following settings.

1. where you lived
2. in your classes
3. on teams
4. at parties
5. where you worked
6. where you shopped
7. where you go out (restaurants, movies, etc.)
8. studying together
9. working on assignments or homework

The responses were later rescored so that very unpleasant had a score of -1.5 and very pleasant had a score of 1.5, with does not apply having a score of zero. The scores were then summed for the nine settings, with the before

coming to the University as Precollege PIC and after coming to the University as Collegiate PIC.

Amount of Precollegiate Interracial Contact (PRENO) and the Amount of Collegiate Interracial Contact (ATNO). PRENO measures the amount of interracial contact the respondent experienced before coming to the University, while ATNO measures the amount of interracial contact since coming to the University. Using the same nine settings as in the PIC measures, the respondents were asked to report how often they had interracial contact in each, both before and after coming to the University. The response options ranged from 1-No contact to 4-Very often. Summed over the nine settings, both PRENO and ATNO are indicators of the frequency with which the respondents had interracial contacts while the Precollege and Collegiate PIC are indicators of the positiveness of interracial contacts.

Precollege Academic Performance. Precollege academic performance indicates a student's entry level skills through high school class rank, curriculum (e.g. college prep, general ed.), and SAT or ACT scores. High school class rank and SAT or ACT scores were obtained from the registrar. In addition, students reported whether or not they had pursued a college prepatory course of study in high school.

Parent's Educational Attainment. Parent's educational attainment is defined as the highest grade level or degree completed by the student's mother and father. A substantial amount of research on status attainment (e.g. Sewell and Hauser, 1976) has indicated that parental education has a significant positive influence on the number of years of education completed by a student. To the extent that Black and Hispanic parents have lower levels of educational attainment than White students' parents, one would

expect the attrition rate to be higher for Black and Hispanic students than for Whites.

Ethnic Organization. Membership in an ethnic organization on campus, and the personal value of such an organization is measured by the following two items:

> Are you actively involved in any university related organization which primarily has members of your own racial/ethnic background? (If so, please name _____)
>
> 1-Yes 2-No
>
> How valuable do you feel belonging to such an organization is or would be for you?

Not at all valuable				Very valuable
1	2	3	4	5

Friends on Campus. Three items dealing with the friendship patterns of the respondents in college were used in this study. One asked for the relative number of friends the respondent had in college as compared to high school, with response options ranging from 1-More friends in college to 3-Fewer friends in college. The second asked for the relative closeness of their friends compared to high school with response options ranging from 1-Close in college to 3-Closer in high school. The third item asked for the number of classes in which they made a friend or friends with response options ranging from 1-None of my classes to 5-All of my classes.

Helping Opportunities. Opportunities to help on campus, and the perceived value of this help is measured by two questions. One asked for the frequency of opportunities to help others while attending this university, with response options ranging from 1-Never to 4-More often than

once a week. The second item asked for a rating of how valuable the respondent feels their help was or could have been, with response options ranging from 1-Not at all valuable to 5-Very valuable.

Openness to Human Diversity. Openness to human diversity is measured by twenty three items, based on a modified version of the Zeigler scale (1980), and other items developed for this study. Response categories followed a Likert-type format with options ranging from 1-Strongly agree to 5-Strongly disagree. Using factor analysis, two dimensions that Zeigler suggests, but did not find statistical evidence for, emerged among the modified items. One reflects the respondents personal feelings in nine items with a reliability of alpha=.7142. The second reflects the respondents general opinions in eight items with a reliability of alpha=.4843. The added items emerged as two dimensions. One reflects the respondent's attitude towards interracial dating and marriage in three items (alpha=.6828). The second dimension reflects the respondent's attitude toward equity policies in four items (alpha=.6512).

College Adjustment: Prepare, Instructors, Relate, and Accomplishment. College adjustment is conceptualized as the opposite of transitional trauma. Transitional trauma in schools is defined as the level of alienation a student experiences when unfamiliar with some of the norms, values and expectations that predominate in a school community. It is likely that all college freshmen experience transitional trauma to some degree. Trauma is likely to be highest in among those students who are least familiar with the schools formal and informal social environment. Those students informed

about the expectations and norms may still experience alienation due to negative prejudice and discrimination on the part of others. Research documents the fact that many teachers have lower expectations for the academic achievement of minority students (Bennett, 1980; 1981; Bennett and Harris, 1982; Rist, 1970; St. John, 1976) and interact with them in intellectually limiting ways (Civil Rights Commission Report, 1973; Gay, 1974). There exists little, if any, study of transitional trauma (i.e. alienation due to cultural conflict) related to race and ethnicity at the university level. However, since there is evidence that these students often experience transitional trauma in elementary and high schools, there is good reason to expect that they also experience it in colleges and universities.

Factor analysis of the responses to twenty five items related to college adjustment yielded four factors. Response options ranged from 1-Strongly agree to 5-Strongly disagree. The degree to which a student feels prepared to be a successful student (PREPAREDNESS) has been shown in other studies to be related to reducing intent to drop out (Bean and Creswell, 1980). This emerged in six items with a reliability of alpha=.6848. The instructors in college (INSTRUCTORS) can have a major impact on the perceptions of students, and a set of six items dealing with instructors emerged as a factor with a reliability of alpha=.7629. The way in which students perceive their social relationships with others (RELATE) is likely to affect their adjustment to the social environment of the college campus, and this emerged as a factor of eight items with a reliability of alpha=.8493. The last factor to emerge is composed of five items that seem

to reflect a student's sense of accomplishment (ACCOMPLISH) with a reliability score of alpha=.6291.

College GPA. The student's actual grade point average up to the time of the study was obtained from the registrar.

Satisfaction. In the original study satisfaction was measured with a single item that asked the respondent to rate how satisfied they were with their decision to come to the University. The current study used a set of sixteen items dealing with certain aspects of the university setting. Factor analysis revealed four factors. Response options ranged from 1-Very dissatisfied to 5-Very satisfied. The first factor dealt with the respondent's social relationships in six items with a reliability of alpha=.7634. The second factor dealt with sections of the university administration in four items with a reliability of alpha=.7780. The third factor dealt with aspects of their classes in four items with a reliability of alpha=.6992. The fourth factor dealt with aspects of the physical environment on campus in two items with a reliability of alpha=.5333.

Persister Status. A student from the 1982 cohort was defined as a persister if they enrolled in either the spring or fall of 1985, had already graduated, or had transferred to another Indiana University campus. Non-persisters were those who had not graduated or enrolled since the fall of 1984. This was determined from the university registrar's records. For the 1985 cohort, persister status was defined as the student's self reported

likelihood of their completing their degree at the University. The response categories ranged from 1-Very unlikely to 5-Very likely.

METHODS AND DATA SOURCE

A computerized master list of students from which the questionnaire samples were drawn was developed as follows. The University's Black, Hispanic, Asian American and American Indian undergraduate student computerized enrollment records were obtained for Summer and Fall of 1982, and Summer and Fall of 1985. The entry semester of each Black, Hispanic, American Indian and Asian American undergraduate was noted. Enrollment for each student over the 1982-1986 time span was recorded so that each student's enrollment status over the 3 1/2 year period could be traced. Transfer students were excluded and those who graduated in three years were included as "persisters". An identical analysis was used on a small random sample of the White undergraduate students, and comparisons of the attrition rates among Black, Hispanic, Asian-American, American Indian, and White students were examined.

A revised version of the 1982 questionnaire was administered late in the spring semester of 1986 to a sample of 66 Asians, 214 Blacks, 72 Hispanics and 105 Whites. The American Indians were too small to be included. The questionnaire data was then combined with registrar provided data on the student's persistence, high school rank, SAT/ACT scores and Grade point average.

A decision was made to contact each respondent personally prior to mailing or personally delivering a questionnaire. Approximately one third

of the non-persisters could not be located. Of non-persisters contacted, the response rate was 80% for Asians, 32% for Blacks, 61% for Hispanics, and 100% for Whites. Most of the 1982 cohort persisters lived off campus and could not be contacted personally. The response rates for 1982 cohort persisters was 30% for Asians, 28% for Blacks, 61% for Hispanics, and 15% for Whites. Response rates for the 1985 freshmen cohort was 58% for Asians, 35% for Blacks, 60% for hispanics and 66% for Whites. Despite the low response rates for certain groups (especially the 1982 cohort Whites), the results are remarkably similar to the findings from the previous study as well as to results of other research on minority student attrition. The fact that this study confirms the original model of Black student persistence that was generated on a sample of one third of the Black student population, with response rates of 90% of those contacted, indicates that these findings are likely to be valid.

FINDINGS

Enrollment figures for the 1982 and 1985 Cohorts.

Table 1 shows the total enrollments of Asian, Black, Hispanic and American Indian undergraduate students for both the 1982 and 1985 cohorts. A random sample of 1% of the White students for each cohort is also included. Comparisons of the enrollment totals show that the numbers of Asian and White students enrolled in 1985 is somewhat higher than in 1982. Black student enrollment drops in 1985 by approximately 120 students, Hispanic students show a decrease of 12, and American Indian enrollments decrease from 13 to 6. Among Black students, the largest decrease is in

students admitted through the GROUPS program; 314 Black students were admitted through GROUPS in 1982, compared to 215 in 1985.

(Insert Table 1)

Table 1 also divides the 1982 cohort into persisters and non-persisters, and shows the numbers and percentages of each. For Black and Hispanic students these figures are also divided into categories of Groups and non-Groups students. Asian and White students have the highest rates of persistence, 73% and 79% respectively. Black students show a persistence rate of 35%, with attrition at 72% for Groups students and 51% for non-Groups students. (These attrition rates were 63% and 61% respectively in the 1982 study.) Among Hispanics, the overall persistence rate is 48%, with attrition rates of 68% for Groups students and 42% for non-Groups students. (The Hispanic student attrition rate was 38% in the 1982 study; differences between Groups and non-Groups students was not determined.)

Comparisons of Persisters and Non-Persisters: The 1982 Cohort

The Satisfaction Measures

Table 2 illustrates results of the breakdown analyses by race and persister status for the four measures of college satisfaction. Among Asian and Black students, persisters were

(Insert Table 2)

less satisfied on all four measures than were non-persisters. These differences were statistically significant for Black students on

satisfaction with social relationships on campus, and on satisfaction with the Campus Administration. The opposite pattern emerges for Hispanics and Whites, whereby persisters are more satisfied on all measures (with the exception of physical environment for Whites) than were non-persisters.

An inspection of the means shows that Black persisters, Asian persisters, and Hispanic non-persisters are most dissatisfied with campus social relationships; Asian and Black persisters and White non-persisters are most dissatisfied with the campus administration; Asian persisters are least satisfied with classes; and Black persisters and non-persisters are least satisfied with the university's physical environment (e.g. living quarters). Table 6 shows that the racial differences are statistically significant for satisfaction with social relationships and the university administration, and that in general the Asians and Blacks (1982 cohort) are the least satisfied with the University.

The College Adjustment Measures

Results of the breakdown analysis by race and persister status for the College Adjustment measures are shown in Table 3.

(Insert Table 3)

As expected, persisters feel more prepared for the university than non-persisters in each ethnic group. The differences between persisters and non-persisters are largest for Asians and Hispanics, where the difference is statistically significant.

Persisters also feel more positive about their college instructors than do non-persisters, with the exception of Black student persisters who feel less positive about instructors than do Black non-persisters. Both Asian and Black persisters feel less positive about social relationships on campus than do Asian and Black non-persisters, and the differences are significant. The opposite pattern emerges for Hispanics and Whites, with persisters feeling more positive about social relations on campus than non-persisters. For all groups except Asians, persisters report stronger feelings of accomplishment on campus than do non-persisters; among Hispanics and Whites the difference is statistically significant.

Table 6 shows that Black persisters feel least positive about their college instructors, and that Asian and Black persisters feel least positive about social relationships on campus (i.e. most socially alienated); these differences are statistically significant.

Openness to Human Diversity Measures

Contrary to what was expected, Asian and Black persisters are less open on all four measures of openness than are non-persisters, with the exception of equity policies among Blacks (See Table 4). Black persisters feel significantly less

(Insert Table 4)

favorable about interracial dating, feel personally uncomfortable in interpersonal multicultural social situations, and express negative opinions about multicultural interactions in general. Black persisters feel

significantly more positive than non-persisters about equity policies, however. Asian persisters are also less open than non-persisters, on all four measures. For Hispanic and Whites, differences between persisters and non-persisters on the openness measures are minor.

Ethnic group differences on the openness variables among the persisters show that Blacks and Whites are least open to interracial dating, Blacks are the most open to equity policies and Whites are the least open, and Blacks are least open to both personal and general multicultural experiences (See Table 6).

Interracial Contact Measures

Table 5 shows results of the breakdown analyses for the four interracial contact measures by race and persister status.

(Insert Table 5)

Among Asians, Hispanics and Whites, persisters have had more interracial contact prior to attending college, and for Asians and Blacks it is less positive than for non-persisters. Black student persisters report less precollegiate interracial contact than do non-persisters, and it is also less positive. Asian and Hispanic persisters have fewer interracial contact experiences on campus than do non-persisters; the opposite is true for Blacks and Whites. Hispanic non-persisters, Black non-persisters, and Black persisters report the least positive interracial contact on campus; White persisters and non-persisters report the lowest frequency of interracial contact prior to college and on campus.

The most important interracial contact variable for this study is campus PIC (positive interracial contact on campus). One would expect persisters to experience more campus PIC than non-persisters. This is true for Asians and Hispanics. It is not true for Blacks, where campus PIC is low for both persisters and non-persisters, or for Whites, where campus PIC is relatively high for both persisters and non-persisters.

Ethnic Group Comparisons on the Social-Psychological and Background Variables for the 1982 Cohort Persisters

Table 6 summarizes results of the breakdown analysis of the social psychological variables by race for the 1982 cohort persisters. Significant differences are found on Social

(Insert Table 6)

Satisfaction, University Administration Satisfaction, INSTRUCTORS, RELATE, PRENO, ATNO and Openness to Equity policies. Black and Asian persisters are less satisfied than Hispanic and White persisters, with Black students being most dissatisfied with the administration. Black students also feel most alienated from their instructors and in their social relations on campus. Persisters from all four groups are remarkably similar in their feelings of being prepared for study at the university. White students report strikingly lower frequencies of interracial contact prior to and on campus, and Black students report the least positive interracial contact experiences in both settings. Black students are the most open to equity policies and

White students are least open. Both Black and Whites are least open to interracial dating. No significant differences are noted for self esteem.

Among the background variables significant differences among persisters in the four groups are discovered for father's education, membership in an ethnic organization, the value of the organization, and friends made in class. The fathers of Asian persisters have the most formal education, while fathers of Black persisters have the least. Black and White persisters are more likely to belong to an ethnic organization than are Hispanic and Asian persisters, and they tend to value it most. Hispanic persisters report making the least number of friends in class, while White persisters appear to make the most friends.

Comparisons Between the 1982 and 1985 Cohorts

In the breakdowns by ethnicity on the social psychological, interracial contact, and background variables the freshmen in the 1985 cohort were found to be very similar to the fourth year students in the 1982 cohort. The 1985 cohort did have higher entry level skills in standardized test scores, high school ranks and high school grade point averages, but these differences paired with the lower enrollments for Black and Hispanic students may simply be the result of the lower rates of entry by "high risk" students.

The pattern identified among the persisters and non-persisters of the 1982 cohort on the social psychological variables is consistent in comparisons with the 1985 cohort. Asian and Black freshmen are less satisfied than the non-persisters and more satisfied than the persisters, while the opposite is true for Hispanics and Whites. Similar differences

in some of the college adjustment measures also appeared. It appears that the longer the Asian and Black students remain on campus, the more dissatisfied and alienated they become. This suggests that something in the college experience is making them less satisfied and is creating more trauma, even if it does not cause them to drop out. For Hispanic and White students there appears to be a contrasting image, in which lower satisfaction and greater trauma to lead to attrition, as freshmen are generally lower in satisfaction and adjustment than persisters, yet higher than non-persisters.

Findings for the Revised Model of Black Student Attrition

The revised model of Black student attrition was used to examine relationships between the variables of interest in this study. A separate analysis was run for Asian freshmen, Black freshmen, Hispanic freshmen, White freshmen, and Black fourth year students. A regression analysis could not be run for the American Indian students because of the small number enrolled, or for Asians, Hispanics, and Whites from the 1982 cohort because of the small number of non-persister respondents.

Tables 7 through 10 present the results of the regression analyses on the freshmen groups. The revised model is generally

(Insert Tables 7-10)

supported by the results, with the exception that no significant predictors of retention for the Hispanic freshmen were found. As is consistent with the original study, for the Asian and White freshmen their college grade

point averages were not significant predictors of retention, while college grade point average was a significant predictor for Black freshmen.

The degree to which Black students in the 1982 cohort fit the revised model of Black student attrition is particularly interesting because it uses the responses of actual persisters and non-persisters. As expected, college GPA predicts persister status but the negative relationship between RELATE and persister status is unexpected. 1982 cohort Black students with the highest college GPA are most likely to be persisters (See Table 11). However, those Black students in the 1982 cohort who feel

(Insert Table 11)

most alienated or negative about their social relationships on campus are most likely to be persisters. This is in sharp contrast with Black freshmen where those who have the strongest intention of completing a degree are those most satisfied with the campus social environment. Among Black freshmen however, students who feel the most prepared for college also feel least satisfied with the social environment on campus, but attain the highest GPA. This finding suggests that Black students who feel least alienated in terms of PREPARE will persist, even though they feel most alienated in terms of RELATE, since college GPA does predict persistence among fourth year students, and Black freshmen who score highest on PREPARE earn the highest GPA.

Membership in an ethnic organization, more college friends, college adjustment, and openness to equity policies all predict college satisfaction. Black seniors who score highest on RELATE feel most positive

about their social relationships on campus (i.e. less trauma), feel most satisfied with the social environment on campus and are most satisfied with the university administration, yet they are most likely to have already dropped out. Students who feel most positive about their college instructors feel most satisfied with the university's social environment, administration and classes.

As was true for Black freshmen, Black students in the 1982 cohort who belong(ed) to a predominantly Black organization feel most dissatisfied with the campus social environment, and those students who value this membership most highly feel most prepared for college (as was also true for freshmen), most dissatisfied with the university administration, and most negative about equity policies. Causal relationships cannot be inferred from the regression analysis, but since the results are similar among Black freshmen and Black students from the 1982 cohort, a likely interpretation is that Black students who feel relatively dissatisfied but feel better prepared for college are more likely to join a Black organization; over time this membership may influence them to become less open to equity policies since freshmen who joined Black organizations do not appear to be less open to equity policies.

More friends predicts satisfaction and college adjustment. Black 1982 cohort students who make more friends in college than in high school feel more satisfied with the university administration and living environment, but less satisfied with the social environment on campus; they also feel more positive about their college instructors. Students whose friends are closer in college than in high school feel a higher sense of accomplishment

in college, feel more positive about their social relationships on campus and feel more open to equity policies.

Campus PIC is a positive predictor of both RELATE and INSTRUCTORS. Black students who experience the most positive interracial contact on campus feel most positive about their social relations on campus, or less socially alienated, and feel more positive about their college instructors. Precollegiate PIC predicts campus PIC as well as openness to human diversity. Black students in the 1982 cohort who experience the most positive interracial contacts prior to college also have the most positive interracial contacts on campus, feel more positive about interracial dating, feel more positive about personal multicultural experiences, and express more positive opinions about general multicultural experiences.

High school rank is negatively related to friends in class, and mother's education is positively related to equity policies. Those Black students who rank highest in high school are least likely to make friends in class. Students whose mothers have the highest formal education level are most open to equity policies. Among Black students from the 1982 cohort neither high school program, nor father's education, not SAT or ACT scores are related to any of the variables in the model.

DISCUSSION

This follow-up study of undergraduate student attrition at Indiana University makes it clear that there exist two different issues (sometimes interrelated). First is the issue of student attrition, and the continuing high dropout rates among Blacks, Hispanics and American Indians on campus.

The second issue, equally important, is the negative quality of campus life for ethnic minorities, including Asians who have relatively low attrition rates, and strong feelings of social alienation and dissatisfaction.

Among Hispanic and White undergraduates these two issues seem closely interrelated: the least satisfied and most alienated students drop out while those who feel most satisfied and best adjusted or least alienated remain. Among Asian and Black undergraduates, however, the issues appear separate. Blacks and Asians in their fourth year on campus, the persisters, feel less satisfied and more socially alienated than do the Black and Asian students who have left the university. (The pattern is more pronounced among Blacks than Asians, due in large part to the larger sample size, but to find it at all among Asians was surprising given their relatively high rates of persistence.) Given the disturbingly low levels of satisfaction and high levels of trauma discovered among fourth year Asian and Black persisters, this research suggests that something in the college experience is making them less satisfied and creating more trauma, even if it does not cause them to drop out. There are important implications here for campus life on the Bloomington campus, as well as for alumni relations and future recruitment of Black and Asian students. The negative feelings expressed by Hispanic non-persisters are equally important.

The multiple regression analysis shows that satisfaction, openness and college adjustment are important predictors of persistence among Asian, Black and White freshmen. Given that campus conditions conducive to positive feelings are perceived to be least favorable by Blacks and Asians, it is likely that Black non-persisters (who score lower than Black freshmen and higher than Black seniors on the satisfaction and college adjustment

measures) leave campus prior to developing the negative feelings expressed by Black fourth year persisters.

This study does not provide answers to the question of why Black and Asian persisters feel more socially alienated and dissatisfied. But possibly it is because these groups are most easily identified as racially distinct from the White majority. Neither entry level skills nor academic performance on campus explain the high levels of dissatisfaction and social alienation since Asians are at the higher end of the GPA, SAT/ACT score continuum and Blacks are at the lower end; yet persisters among both feel more alienated on campus than do Hispanic or White persisters.

The finding that both Black and Asian persisters are generally less open minded than non-persisters is also puzzling. Do these students become less open-minded the longer they stay on campus? Or do they have lower expectations concerning the quality of multicultural experience on campus and can therefore persist despite a negative social environment? The original study (Bennett, 1984) showed that open mindedness was a predictor of college adjustment (i.e. the most open felt least trauma); however that study was based primarily on freshmen and sophomore respondents and the findings are consistent with results from the follow up study's freshmen cohort.

This follow up research on the original model of Black student attrition confirms the validity of the basic model among Asian, Black and White freshmen. For Hispanics, none of the model's variables are related to persister status. However, predicted relationships do exist among the social psychological variables, institutional variables, and background variables. Assuming that the findings from the breakdown analysis would

hold on a larger sample of Hispanic undergraduates (i.e. non-persisters are dissatisfied, feel socially alienated and have less positive interracial contact experiences on campus), it can be expected that with a larger sample of Hispanics some of the satisfaction and college adjustment variables would predict persister status. It is also likely that there are significantly different effects for male and female Hispanics, and that these effects cancel each other out. Breakdowns, not reported above, on all the social psychological variables by sex and ethnic group showed significant sex differences only for Hispanics, and these differences are noted on many of the variables. In general, Hispanic females feel more socially alienated and less satisfied than do Hispanic males.

The current research supports the previous research findings that feelings of satisfaction and college adjustment are predictors of students' perceptions of their own likelihood of graduation (Bennett, 1984; Bennett and Bean, 1984). It confirms these findings among freshmen at Indiana University and among Hispanic and White fourth year students. Among Blacks and Asians in the fourth year, however, this is no longer true. At the fourth year level two different processes appear to be operating among Asians and Blacks on the one hand, and Hispanics and Whites, on the other. Qualitative research is now needed, particularly in-depth interviews and discussions with selected student groups, to better understand these differing processes.

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FIGURE 1

THE CONCEPTUAL MODEL OF BLACK STUDENT ATTRITION: REVISED

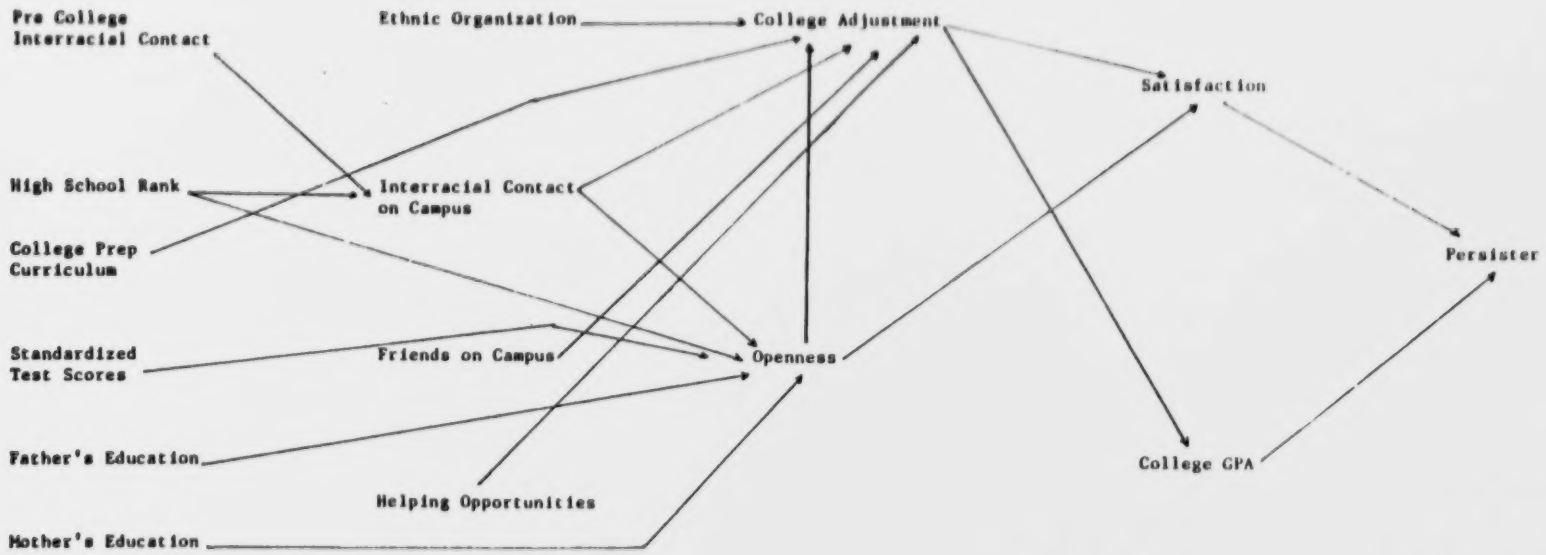

Table 1

1982 and 1985 Undergraduate Cohorts: New Students Only
(Initially enrolled in Summer or Fall of 1982, and Summer or Fall of 1985)

	1982 Cohort								1985 Cohort	
	Persisters			Non-Persisters			Total		Total	
Asian	57	73%		12	27%		69		80	
Black	168	35%		313	65%		481		359	
	Groups	Non Groups		Groups	Non Groups		Groups	Non Groups	Groups	Non Groups
	86	82		228	85		314	167	215	144
	28%	49%		72%	51%		65%	35%	60%	40%
Hispanic	42	48%		46	52%		88		76	
	Groups	Non Groups		Groups	Non Groups		Groups	Non Groups	Groups	Non Groups
	11	31		23	23		34	54	37	39
	32%	58%		68%	42%		39%	61%	49%	51%
Am. Indian	6	46%		7	54%		13		6	
White	96	79%		25	21%		121		127	

Table 2

BREAKDOWNS FOR SATISFACTION MEASURES BY RACE AND PERSISTER STATUS: 1982 Cohort

	Social Relationships on Campus			Campus Administration			Classes			Physical Environment		
	$\bar{X}$	SD	Sig	$\bar{X}$	SD	Sig	$\bar{X}$	SD	Sig	$\bar{X}$	SD	Sig
Asian												
Persister (N=16)	3.733	3.128	.0881	-.625	3.403	NS	1.75	2.352	NS	1.750	1.390	NS
Non-Persister (N=4)	7.00	3.559		.7500	4.113		3.250	3.096		2.250	.500	
Black												
Persister (N=47)	.909	4.051	.0018	-.457	2.8652	.0005	2.064	2.892	NS	1.404	1.611	NS
Non-Persister (N=41)	3.4872	3.077		1.829	2.999		2.195	2.052		1.585	1.225	
Hispanic												
Persister (N=16)	5.438	3.076	.0598	2.188	3.391	NS	3.333	2.093	NS	2.438	1.031	NS
Non-Persister (N=11)	3.111	2.260		.455	3.142		2.636	1.748		2.091	1.514	
White												
Persister (N=14)	5.643	3.500	NS	.786	3.332	NS	2.385	3.254	NS	1.714	1.684	NS
Non-Persister (N=7)	4.143	4.100		-.857	1.345		2.286	1.800		2.143	.900	

Table 3

BREAKDOWNS FOR COLLEGE ADJUSTMENT MEASURES BY RACE AND PERSISTER STATUS: 1982 Cohort

	PREPARE			Instructors			RELATE			Feeling of Accomplishment		
	$\bar{X}$	SD	Sig	$\bar{X}$	SD	Sig	$\bar{X}$	SD	Sig	$\bar{X}$	SD	Sig
Asian												
Persister (N=16)	24.938	3.768	NS	21.133	3.482	NS	29.133	4.749	.0777	18.667	3.063	NS
Non-Persister (N=4)	22.750	7.274		20.500	7.416		33.750	1.708		20.500	3.416	
Black												
Persister (N=47)	24.978	3.986	NS	18.894	4.913	NS	26.596	5.368	.006	19.170	2.951	NS
Non-Persister (N=41)	24.049	4.242		19.800	4.911		29.513	3.879		18.829	3.911	
Hispanic												
Persister (N=16)	24.125	3.613	.042	21.333	3.754	.013	30.600	4.852	.039	19.600	4.137	.014
Non-Persister (N=11)	20.818	4.400		17.727	2.760		27.000	2.933		15.455	3.698	
White												
Persister (N=14)	24.929	3.316	NS	21.286	3.891	NS	30.643	4.343	NS	20.214	3.043	.055
Non-Persister (N=7)	24.143	4.220		19.857	3.579		28.571	4.860		17.000	4.042	

Table 4

BREAKDOWNS ON OPENNESS MEASURES* BY RACE AND PERSISTER STATUS: 1982 Cohort

	Interracial Dating			Equity Policy			Personal Feelings			Opinion		
	$\bar{X}$	SD	Sig	$\bar{X}$	SD	Sig	$\bar{X}$	SD	Sig	$\bar{X}$	SD	Sig
Asian												
Persister (N=16)	5.813	2.664	NS	9.375	2.986	NS	19.563	5.059	.0193	14.063	3.172	.0374
Non-Persister (N=4)	4.500	1.732		8.750	2.217		12.750	2.630		10.250	2.217	
Black												
Persister (N=47)	7.128	2.916	.004	6.544	2.456	.005	21.196	5.244	.030	15.277	4.174	.035
Non-Persister (N=41)	5.500	2.088		8.050	2.407		18.750	5.001		13.526	3.143	
Hispanic												
Persister (N=16)	5.688	2.20	NS	10.188	3.692	NS	18.933	3.105	NS	14.867	3.378	NS
Non-Persister (N=11)	6.818	2.523		9.909	3.330		18.636	5.025		14.818	3.459	
White												
Persister (N=14)	7.357	2.170	NS	11.429	2.766	NS	18.000	5.491	NS	13.500	2.849	NS
Non-Persister (N=7)	7.429	2.879		11.429	3.867		18.143	4.880		11.833	2.639	

*Note: These scales were scored negatively, so that higher means indicate less openness and lower means indicate more openness.

Table 5

BREAKDOWNS FOR INTERRACIAL CONTACT MEASURES BY RACE AND PERSISTER STATUS: 1982 Cohort

	PRENO			ATNO			Precollege PIC			College PIC		
	$\bar{X}$	SD	Sig	$\bar{X}$	SD	Sig	$\bar{X}$	SD	Sig	$\bar{X}$	SD	Sig
Asian												
Persister (N=16)	24.813	7.414	NS	22.286	7.032	NS	5.969	4.129	NS	6.367	3.898	NS
Non-Persister (N=4)	24.750	12.038		26.500	12.124		7.750	5.124		5.875	5.154	
Black												
Persister (N=47)	22.267	8.500	.099	25.000	7.730	NS	4.722	3.680	NS	4.739	3.564	NS
Non-Persister (N=41)	25.282	7.997		24.700	6.817		5.695	3.785		4.923	3.725	
Hispanic												
Persister (N=16)	23.667	8.731	NS	20.500	8.410	NS	6.719	3.656	NS	6.500	4.870	NS
Non-Persister (N=11)	20.100	8.359		20.667	8.916		5.350	3.621		4.700	2.720	
White												
Persister (N=14)	16.786	8.497	NS	17.750	8.781	NS	4.821	3.891	NS	5.385	3.652	NS
Non-Persister (N=7)	13.250	2.500		16.000	4.183		4.750	4.720		6.286	3.650	

Table 6

SUMMARY OF SOCIAL-PSYCHOLOGICAL VARIABLES BY RACE: 1982 COHORT PERSISTERS

Scale	Asians (N=15) $\bar{X}$	SD	Blacks (N=44) $\bar{X}$	SD	Hispanics (N=16) $\bar{X}$	SD	Whites (N=14) $\bar{X}$	SD	Sig
1. Satisfaction A: Social Relationships	3.733	3.128	.909	4.051	5.438	3.076	5.642	3.500	.0000
2. Satisfaction B: Univ. Admin.	- .625	3.403	- .457	2.865	2.188	3.391	.786	3.332	.0222
3. Satisfaction C: Classes	1.750	2.352	2.064	2.892	3.333	2.093	2.385	3.254	NS
4. Satisfaction D: Living Environment	1.750	1.390	1.404	1.610	2.438	1.030	1.714	1.684	NS
5. Interracial Contact Frequency: Pre College	24.813	7.418	22.267	8.500	23.667	8.731	16.786	8.496	.0553
6. Interracial Contact Frequency: On Campus	22.286	7.032	25.000	7.730	20.500	8.410	17.750	8.781	.0313
7. Positive Interracial Contact: Pre College	5.969	4.129	4.722	3.560	6.719	3.656	4.821	3.891	NS
8. Positive Interracial Contact: On Campus	6.367	3.898	4.739	3.564	6.500	4.870	5.385	3.652	NS
9. Openness A: Interracial Dating	5.813	2.663	7.128	2.916	5.688	2.120	7.357	2.170	.1103
10. Openness B: Equity Policies	9.375	2.986	6.544	2.456	10.188	3.692	11.429	2.766	.0000

11. Openness C: Personal Feeling	19.563	5.059	21.196	5.244	18.933	3.105	18.000	5.491	.1334
12. Openness D: Opinion	14.063	3.172	15.277	4.174	14.867	3.378	13.500	2.849	NS
13. College Adjustment A: Feeling Prepared	24.938	3.768	24.978	3.986	24.125	3.613	24.929	3.316	NS
14. College Adjustment B: Instructors	21.133	3.482	18.894	4.913	21.333	3.754	21.286	3.891	.0948
15. College Adjustment C: Social Relationships	29.133	4.749	26.596	5.368	30.600	4.852	30.643	4.343	.0106
16. College Adjustment D: Sense of Accomplishment	18.667	3.063	19.170	2.951	19.600	4.137	20.214	3.043	NS
17. Self Esteem	33.429	4.127	34.617	3.548	33.625	3.649	33.143	3.800	NS

Table 7

BLACK FRESHMEN

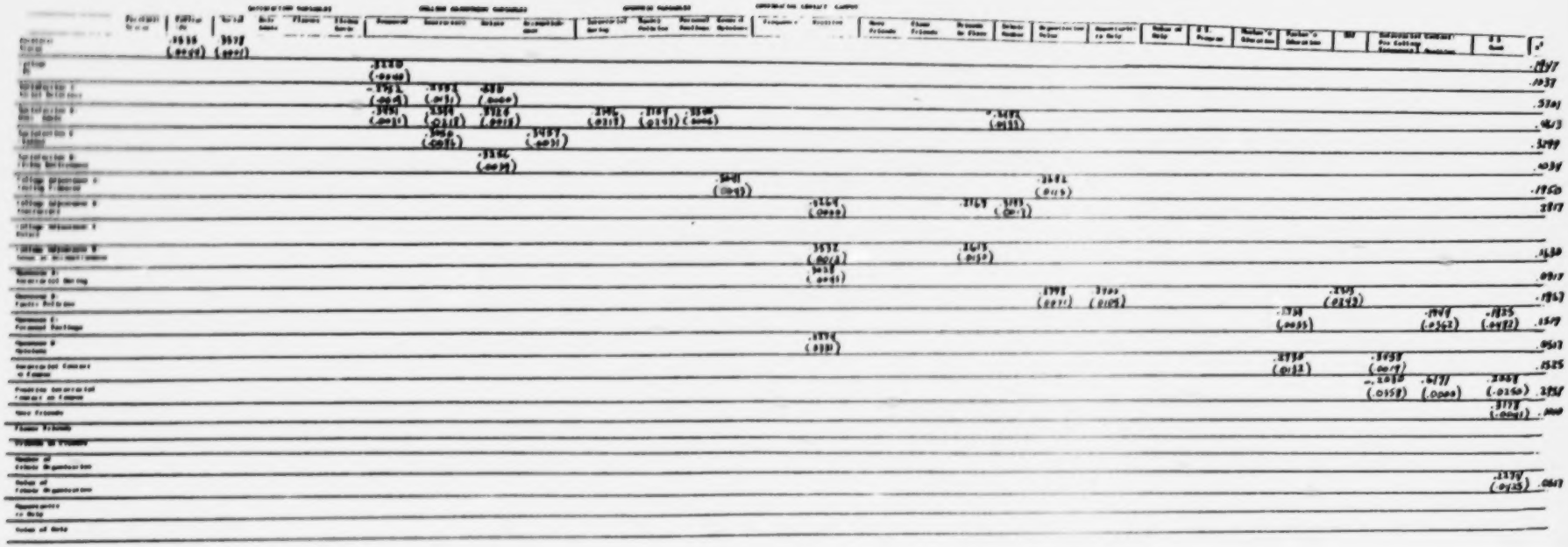

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Table 8

LATINO FRESHMEN

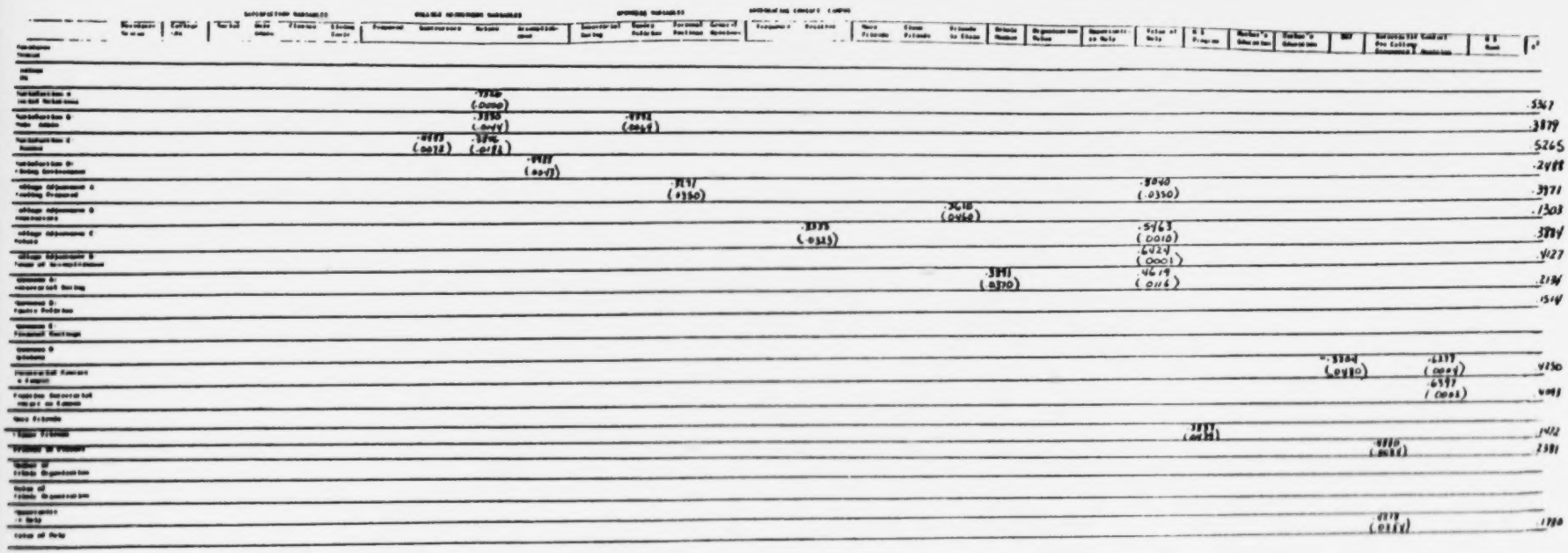

Table 9

ASIAN FRESHMEN

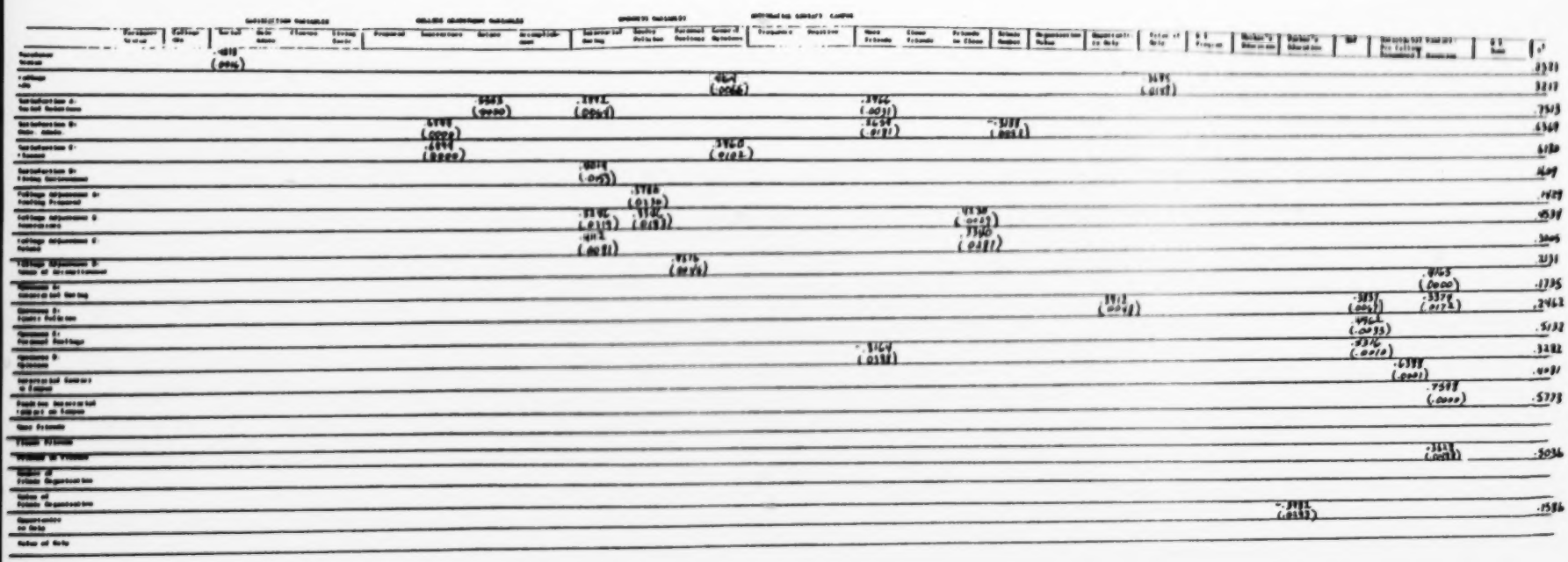

Table 10

WHITE FRESHMEN

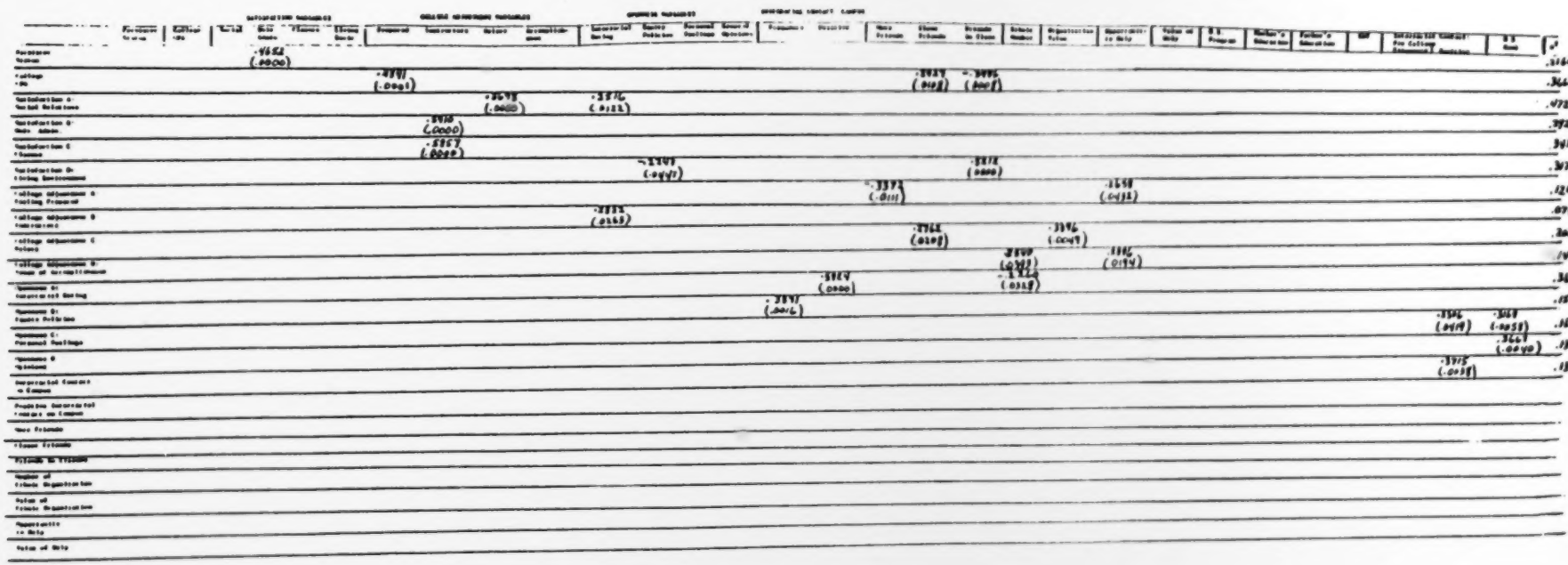

Table 11

BLACK SENIORS